

Monsanto

FILE
SEATTLE
SOLID/HAZ
WASTE

FROM
(NAME - LOCATION - PHONE)

R. E. Rhoades - 1810 - (206) 764-4484

DATE :

May 9, 1983

M. N. Miller

W. B. Papageorge - G4WA

SUBJECT :

Process Waste Inventory

REFERENCE :

TO :

V. T. Matteucci - B2SC

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Attached are the Process Waste Inventory Sheets for the Seattle plant. A significant amount of engineering effort is being directed at developing industrial uses for future sales of our waste streams. If you require additional information, please let me know.

R. E. Rhoades
R. E. Rhoades

RER:jbh

Attachment

PROCESS WASTE INVENTORY
PLANT: Seattle

SOURCE	WASTE CHARACTERISTICS	WHY CONSIDERED HAZARDOUS	QUANTITY K LBS./YRS.		HANDLING METHOD	HOW TREATED/ DISPOSED	WHERE TREATED/ DISPOSED	WHAT IS OUR GUIDELINE?	1983 CURRENT COST \$K	PLAN		1/1/84 NEW QUANTITY K LBS./YR.		EST. NEW COST 1984 \$K
			GROSS	DRY						1983-1984	LONG RANGE	GROSS	DRY	
Vanillin	Vanillin Black liquor (VBL); a liquid containing approx. 78% water, approx. 50 ppm calcium, approx. 10 ppm copper, approx. 5% sodium, approx. 1.6% sulfur, pH - 12-13. Considered dangerous, corrosive.	Federal regulation under RCRA for corrosive pH.	380000	84000	Barge or tankcar.	100% sold as co-product.	Off site NPDES permit to dump in Straits of Juan de Fuca in emergency only.	Incinerate thru industrial use.	Sales revenue in excess of \$2M/yr.	Continue selling all production.	Continue sales.	380000	84000	\$2M revenue.
Vanillin	Residual solids from cleanout of tanks, reactors, and strainers, which cannot be mixed with the above saleable wastes. A solid containing dehydrodivanillins; acetovanillins; carbonate, oxalate and sulfate salts of sodium, calcium and copper. Considered dangerous, toxic.	State DOE regulation for solid waste.	324	324	Dump truck.	Hazardous landfill.	Off-site, Chem-Security, Arlington.	Render non-hazardous by 1/1/88 or develop industrial uses.	\$13	--	Sell for copper reclamation or render non-hazardous by converting from copper to manganese catalyst.	324	324	\$13
Vanillin	Vanillin black liquor solids (VBLS). A slurry containing: 20-60% water, 12-36% calcium, 7-11% sodium, 1-3% copper, 8-22% carbonate, pH - 12-13. Considered dangerous, corrosive.	Federal regulation under RCRA for corrosive pH.	17400	10400	Trailer truck.	Approx. 50% sold. Residual sent to hazardous landfill.	Off-site, Chem-Security, Arlington.	Incinerate thru industrial use.	\$400	Incinerate at St. Regis Mill in Tacoma, WA.	Incinerate thru industrial use or neutralize to render non-hazardous.	17400	10400	\$180
Vanillin	Vanillin still bottoms (VSB). A solid containing vanillin (3-18%) dehydrodivanillins, guaiacol, phenolics, cresols, mineral oil, and acetovanillone. Considered dangerous, toxic.	State DOE regulations for solid waste.	720	720	Trailer truck.	Sent to hazardous landfill.	Off-site, Chem-Security, Arlington.	Incinerate thru industrial use or render non-hazardous.	\$29	1. Incinerate at a pulp mill. 2. Sell as a substitute for pitch in carbon anode production. 3. Develop process to make wax for use in particle board manufacture.	SAME	720	720	\$15